

Title (en)

ALLULOSE EPIMERASE VARIANT WITH EXCELLENT THERMAL STABILITY, PREPARATION METHOD THEREFOR, AND PREPARATION METHOD FOR ALLULOSE USING SAME

Title (de)

ALLULOSE EPIMERASE VARIANTE MIT AUSGEZEICHNETER THERMISCHER STABILITÄT, HERSTELLUNGSVERFAHREN DAFÜR UND HERSTELLUNGSVERFAHREN FÜR ALLULOSE DAMIT

Title (fr)

VARIANT D'ALLULOSE ÉPIMÉRASE AYANT UNE EXCELLENTE STABILITÉ THERMIQUE, SON PROCÉDÉ DE PRÉPARATION ET PROCÉDÉ DE PRÉPARATION D'ALLULOSE L'UTILISANT

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Abstract (en)

The present invention provides a novel allulose epimerase variant in which an amino acid residue present at a specific position of an amino acid sequence of wild-type D-allulose 3-epimerase derived from *Flavonifractor plautii* is substituted with another amino acid residue, and various uses thereof. The novel allulose epimerase variant according to the present invention has a higher conversion activity of fructose to allulose than that of the wild-type D-allulose 3-epimerase derived from *Flavonifractor plautii* or a D-allulose epimerase variant W29K/G216S/M234I, and has excellent thermal stability especially under high temperature conditions of 60°C or higher, thereby preventing contamination during an industrial-scale enzymatic conversion reaction for the mass production of allulose, shortening the production time, and reducing the production costs.

IPC 8 full level

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